MAR 0 7 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences

H - HF

3627

Application of: JOCHEN KAPPEL et al.	Group Art Unit:	3627
Serial No.: 09/819,446	Examiner:	L. Jasmin
Filed: March 28, 2001	Our Customer ID:	22827
For: CUSTOMER CARE AND BILLING SYSTEM	Our Account No.:	04-1403
Sir:	Attorney Ref.:	SSM-9

1. [ ] **NOTICE OF APPEAL**: Pursuant to 37 CFR 41.31, Applicant hereby appeals to the Board of Appeals from the decision dated <u>10/05/04</u> of the Examiner twice/finally rejecting claims <u>1-20</u>.
2. [X] **BRIEF** on appeal in this application pursuant to 37 CFR 41.37 is transmitted herewith (1 copy)
3. [ ] An **ORAL HEARING** is respectfully requested under 37 CFR 41.47 (due within one month after Examiner's Answer).
4. [ ] Reply Brief under 37 CFR 41.41(b) is transmitted herewith (1 copy).
5. [ ] "Small entity" verified statement filed: [ ] herewith [ ] previously.
6. **FEE CALCULATION:**

		Fees
If box 1 above is X'd enter $500.00	$	
If box 2 above is X'd enter $500.00	$	500.00
If box 3 above is X'd enter $1,000.00	$	
If box 4 above is X-d enter –0- (no fee)	$	

Petition is hereby made to extend the <u>original</u> due date of
<u>March 5, 2005</u> to cover the date of this paper and
any enclosure for which the requisite fee is (1 month $120);
(2 months $450); (3 months $1,020); (4 months $1,590),
(5 months $2,160)

	$	
Subtotal	$	500.00

<u>Less</u> any previous extension fee <u>paid</u> since above
original due date.

	- $	
Subtotal	$	500.00

If "small entity" box 5 above is X'd, enter one-half
(1/2 of subtotal and <u>subtract</u>)

	- $	
TOTAL FEE	$	500.00

[X] Fee enclosed.
[ ] Charge fee to our Deposit Account/Order Nos. in the heading hereof (for which purpose one <u>additional</u> copy of this sheet is attached)
[ ] Fee <u>NOT</u> required since paid in prior appeal in which the Board of Appeals did <u>not</u> render a decision on the merits.

The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any fees in addition to the fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (<u>deficiency only</u>) now or hereafter relative to this application and the resulting official document under Rule 20, or credit any overpayment, to our Account No. show in the heading hereof for which purpose a <u>duplicate</u> copy of this sheet is attached. This statement <u>does not authorize</u> charge of the <u>issue fee</u> in this case.

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Date: <u>March 7, 2005</u>

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I hereby certify that this paper, papers attached hereto, and/or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450

<u>CHRISTINE P. STANFIELD</u>
(Typed or printed name of person mailing paper or fee)

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(Signature of person mailing paper or fee)

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ATTORNEY DOCKET NO.: <u>SSM-9</u>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In re Application of: Jochen Kappel et al.)	Examiner: Lynda C. Jasmin
)	
Serial No.: 09/819,446)	Group Art Unit: 3627
)	
Filed: March 28, 2001)	Our Customer ID: 22827
)	
Confirmation No.: 2724)	Our Account No.: 04-1403
)	
For: Customer Care and Billing System)	
)	

<u>Ex Parte APPEAL BRIEF Pursuant to 37 C.F.R. §41.37</u>

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Post Office Box 1450
Alexandria, VA 22313-1450

Honorable Commissioner:

In response to the Final Rejection communications received from the Examiner

and mailed on October 5, 2004 with regard to the above-referenced application,

Applicant hereby submits this Appeal Brief (together with Section viii: CLAIMS

APPENDIX) in accordance with 37 CFR § 41.37 as well as the requisite fee for the

Appeal Brief as set forth in 37 CFR § 41.20(b)(2). Notice of Appeal was filed on

January 5, 2005.

i. <u>REAL PARTY IN INTEREST</u>:

The real party in interest with respect to the above-captioned application and to

this appeal is an assignee and/or any successor interests thereof, which by assignment

recorded on February 10, 2004, at Reel 014981, Frame 0322, is SchlumbergerSema Telekom GmbH & Co. KG, a corporation duly organized, incorporated and existing under the laws of Germany, having its principal office and place of business at Atrogen Building, Otto-Hahn-Strasse 36, 63303 Dreieich, Germany 63303.

ii.   RELATED APPEALS AND INTERFERENCES:

Applicant is not aware of any other appeals or interferences that will directly affect or have bearing on the Board's decision on this appeal.

iii.   STATUS OF CLAIMS:

The subject application was filed March 28, 2001 and set forth original claims 1-20, with claim 1 being in independent form. All claims 1-20 remain pending in the subject application and all such claims stand finally rejected. Applicant is appealing the final rejection of all claims 1-20, and respectively, in the alternative, the final rejection of claims 2, 7, 9-15 and 18-19.

iv.   STATUS OF AMENDMENTS:

Applicants filed an Amendment pursuant to 37 C.F.R. §1.111, which was mailed on June 23, 2004. Such paper presented amendments to original claims 1 and 4-20. It is Applicants' understanding from the USPTO Office Action mailed October 5, 2004 that such amendments were made of record in the subject case. A copy of claims 1-20 as previously presented are included in the Claims Appendix of Section (viii) of this Brief.

v.   **SUMMARY OF CLAIMED SUBJECT MATTER:**

A first exemplary embodiment of the present subject matter, set forth in independent claim 1, corresponds to a customer care and billing system, especially for communication services. Such a customer care and billing system is generally depicted as element 1 in Figs. 2 and 3, and includes at least one database, a plurality of clients or at least one application server with accompanying clients, and an appropriate framework.

With reference to Fig. 2, the at least one database 7 of claim 1 is configured for storage and retrieval of data preferably formed as a server. See pg. 6, lines 20-21 of the original specification. A plurality of clients or at least one server with accompanying clients is provided whereby the clients or the application server are configured for communicating with the at least one database 7. The appropriate framework set forth in claim 1 is depicted as element 10 in Fig. 2 and is referenced in the original specification on page 8, line 18 and page 10, lines 13-16.

The customer care and billing system set forth in independent claim 1 is further characterized in that relevant services corresponding to desired customer care or billing processes are offered to the system user. See page 6, lines 23-24 for general reference to such processes and see pages 7 and 8 for specific examples of customer care or billing processes as utilized in a telecommunications application. The customer care and billing system 1 of claim 1 also comprises a distributed component architecture including components (generally depicted as elements 5 in Fig. 2) attributed in correspondence to the relevant services offered, wherein the components 5 are able to

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communicate with each other directly via interfaces. See page 4, lines 8-13 and page 8, line 18.

Dependent claims 2-20 respectively set forth more particular exemplary embodiments of a customer care and billing system in accordance with the subject technology, and a summary of the subject matter set forth in such dependent claims will now be presented.

With regards to claim 2, the customer care and billing system 1 is characterized in that the system is divided into at least two hierarchically arranged layers with an increasing degree of abstraction wherein any lower layer isolates the above layer from the lower layers so that details of implementations of the lower layers are hidden from the layers above. See page 4, lines 14-19, page 12, lines 18-19 and 23-35 of the original specification. Specific examples of such layers are depicted as elements 40-50, respectively, in Fig. 3.

With regards to claim 3, the customer care and billing system 1 is characterized in that the system is divided into at least two hierarchically arranged tiers corresponding to technical tasks wherein the combined elements of all tiers together completely fulfill the tasks from the storage to the presentation of data. See page 4, lines 20-21 and page 14, lines 4-9 of the original specification. Specific examples of such tiers are depicted as elements 52-62, respectively, in Fig. 3.

With regards to claim 4, the customer care and billing system 1 comprises a lowest base layer 40 (illustrated in Fig. 3) containing fundamental system behavior. See page 13, lines 1-7 of the original specification.

With regards to claim 5, the customer care and billing system 1 comprises a common layer 42 (illustrated in Fig. 3) located above the base layer 40 containing abstractions of classes of the base layer 40 and classes that provide common facilities for all layers and tiers. See page 13, lines 8-10 of the original specification.

With regards to claim 6, the customer care and billing system 1 comprises a technical services layer 44 (illustrated in Fig. 3) located above the common layer 42 providing software-related technical services. See page 13, lines 11-12 of the original specification.

With regards to claim 7, the customer care and billing system 1 comprises an application layer 46 (illustrated in Fig. 3) located above the technical services layer 44 combining the services of the technical services layer 44 in an abstract application and allowing mechanisms for description of the elements of the domain tier 58 on a meta-level. See page 13, lines 13-19 of the original specification.

With regards to claim 8, the customer care and billing system 1 comprises a business layer 50 (illustrated in Fig. 3) located above the application layer 46 containing the domain-specific classes for each component 5. See page 13, lines 21-24 of the original specification.

With regards to claim 9, the customer care and billing system 1 comprises a presentation tier 52 (illustrated in Fig. 3) implementing the presentation of data and the feasibilities of application for the user of the system 1. See page 14, lines 10-22 of the original specification.

With regards to claim 10, the customer care and billing system 1 comprises an

application tier 54 (illustrated in Fig. 3) containing classes and interfaces that represent

the application. See page 14, line 23 – page 15, line 5 of the original specification.

With regards to claim 11, the customer care and billing system 1 comprises a

meta-application tier 56 (illustrated in Fig. 3) containing classes that provide facilities to

an application to describe aspects of itself. See page 15, lines 11-17 of the original

specification.

With regards to claim 12, the customer care and billing system 1 comprises a

domain tier 58 (illustrated in Fig. 3) containing business object classes of a specific

application domain. See page 15, line 20 – page 16, line 4 of the original specification.

With regards to claim 13, the customer care and billing system 1 comprises a

persistence tier 60 (illustrated in Fig. 3) representing a reproduction of the class model

of the domain tier 58 into the data model of the at least one database 7 and supporting

mechanisms for transaction-protected manipulation of data in the at least one database

7. See page 16, lines 5-11 of the original specification.

With regards to claim 14, the customer care and billing system 1 comprises a

meta-application dictionary containing information about one component 5, its classes

and the attributes of these classes, and allowing the dynamic configuration of

application information and processing on a meta-level. See page 17, lines 3-10 of the

original specification.

With regards to claim 15 and as represented in the illustration of Fig. 4, the

customer care and billing system 1 comprises facilities 68 to make the server's interface

model available on client side 70 and thus to hide the employed communication

technology from a client developer. See page 5, lines 8-10 and page 16, lines 23-25 of the original specification.

With regards to claim 16, the customer care and billing system 1 is characterized in that the system 1 provides defined interfaces and mechanisms for inquiry distribution, so that multiple application servers of the same kind can be added to the system 1. See page 5, lines 11-14 of the original specification.

With regards to claim 17, the customer care and billing system 1 is characterized in that the system 1 provides the possibility of replacing or adding components 5. See page 5, lines 15-18 of the original specification.

With regards to claim 18, the customer care and billing system 1 is characterized in that classes can be extended and/or new classes can be added to vary a component during processing by using meta-application facilities. See page 5, lines 19-21 of the original specification.

With regards to claim 19, the customer care and billing system 1 is characterized in that the database 7 comprises a plurality of independent database sections 12 and/or multiple independent databases 12 exist, wherein each of the independent database sections and/or the independent databases 12 only communicate with one component 5. A specific example of such an arrangement is generally illustrated in Fig. 5C and discussed in the original specification on page 5, lines 22-23 and page 18, lines 3-9.

With regards to claim 20, the customer care and billing system 1 is characterized in that the system 1 provides mechanisms to allow transaction and memory management distributed over components 5. See page 6, lines 1-3 of the original specification.

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vi. **GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:**

I. Whether claim 1 is patentable under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.).

II. Whether claim 2 is patentable under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.).

III. Whether claim 7 is patentable under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.).

IV. Whether claims 9-13 are patentable under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.).

V. Whether claim 14 is patentable under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.).

VI. Whether claim 15 is patentable under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.).

VII. Whether claim 18 is patentable under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.).

VIII. Whether claim 19 is patentable under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.).

vii. **ARGUMENT:**

Each argument presented hereafter sets forth reasons advocating the patentability of respective claims in the subject application under 35 U.S.C. §102(e) over U.S. Patent Application Publication No. US 2001/0056362 A1 (Hanagan et al.). Before setting forth a discussion of the prior art patent application publication applied in

the subject Final Rejection Office Action as it relates to each of the various claims for which arguments are respectively presented in this Appeal Brief, certain portions of patent statutes, rules, regulations, authorities and parts of the record are presented. For brevity, such materials are presented once as a preface because they may commonly and equally apply to each of the arguments presented hereafter.

It is respectfully submitted that controlling case law has frequently addressed rejections under Section 102. "For a prior art reference to anticipate in terms of 35 U.S.C Section 102, every element of the claimed invention must be identically shown in a single reference." Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 677, 7 U.S.P.Q.2d 1315, 1317 (Fed Cir, 1988; emphasis added). The disclosed elements must be arranged as in the claim under review. See Lindemann Machinefabrik v. American Hoist & Derrick Co., 730 F.2d 1452, 1458, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). If any claim, element, or step is absent from the reference that is being relied upon, there is no anticipation. Kloster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 U.S.P.Q. 81 (Fed. Cir. 1986). Anticipation under 35 U.S.C. Section 102 requires that there be an identity of invention. See Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, ___, 225 U.S.P.Q. 635, 637 (Fed. Cir. 1985). In PTO proceedings, claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. In re Sneed, 710 F.2d 1544, 1548, 218 U.S.P.Q. 385, 388 (Fed. Cir. 1983).

Several portions of the patent statute and patent rules address the nature of examination of an application and the corresponding completeness of an examiner's

action in rejecting claims of an application. More particularly, 35 U.S.C. §132(a) states that

> *"Whenever, on examination, any claim for a patent is rejected, ...the*
>
> *Director shall notify the Applicant thereof, stating the reasons for such*
>
> *rejection,...together with such information and references as may be useful in*
>
> *judging the propriety of continuing the prosecution of his application".*

In addition, 37 C.F.R. §1.104(b) states that "The Examiner's action will be complete as to all matters." 37 C.F.R. §104(c)(2) continues to set forth that

> *"In rejecting claims for want of novelty or for obviousness, the examiner*
>
> *must cite the best references at his or her command. When a reference is*
>
> *complex or shows or describes inventions other than that claimed by the*
>
> *applicant, the particular part relied on must be designated as nearly as*
>
> *practicable. The pertinence of each reference, if not apparent, must be clearly*
>
> *explained and each rejected claim specified."*

The presently applied <u>Hanagan et al.</u> '362 published application has 29 Figures and over 400 numbered paragraphs of disclosure, which would tend to suggest that a significant amount of detailed discussion would be incumbent on the Examiner.

    I.   <u>Claim 1 is patentable under 35 U.S.C. §102(e) over Hanagan et al. (U.S.</u>

        <u>Patent Application No. US 2001/0056362 A1).</u>

Claim 1 sets forth a customer care and billing system that includes, in part, a system comprising a distributed component architecture including components attributed in correspondence to relevant services offered, wherein the components are able to communicate with each other <u>directly</u> via interfaces.

The December 23, 2003 and October 5, 2004 Office Actions allege that Hanagan et al. disclose all features set forth in claim 1, including aspects concerning Hanagan et al. system components (12, 14, 16, 18 and 22) being able to communicate with one another via interfaces as described in paragraph [321]. Such portion of the reference more particularly sets forth that "The invention is built from components that have clearly defined interfaces with each other." The Examiner further points to Figure 1 in the October 5, 2004 Office Action, asserting that "Hanagan et al. clearly illustrates in Figure 1 and discloses in paragraphs [0081], [0090] and [0198] that:

'ERP 16 interfaces with the Customer Billing Manager (CBM) 18 to provide final pricing and discounting of usage events, recurring and one-time charge events for billing. ERP 16 also interfaces with the Customer Care Managaer (CCM) 12 to obtain customer data, the Product and Services Manager (PSM) 14 to obtain price plan reference information and the Financial Event Engine (FEE) 20 to obtain one-time charges.' "

Although paragraph [321] of Hanagan et al. references that the disclosed customer care and billing system is built from components (12, 14, 16, 18, etc.) that have clearly defined interfaces with one another, it is seen from Figure 1 that such interfaces do not necessarily provide for direct communication among the various clients. In contrast, components 12, 14 and 16 in particular communicate indirectly through database server 29.

For a more detailed analysis of the disclosure of Hanagan et al., consider Figure A presented below, which depicts the six exemplary components 12 through 22, respectively pointed to by the Examiner in the October 5, 2004 Office Action and

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referenced in the embodiment of Figure 1 in <u>Hanagan et al.</u> Figure A of this Appeal

Brief highlights only the interaction of such components with one another in attempt to

better illustrate differences between the disclosure of <u>Hanagan et al.</u> and the limitations

of claim 1.

Claim 1 sets forth that all components of the customer care and billing system

communicate with each other directly via interfaces. The Examiner alleges that such

relationship is disclosed among the components of Figure 1. But referring now to

Figure A, Applicants submit that direct communication among all components is clearly

not provided. For example, consider components 14 and 22. Both such components

may have interfaces for directly communicating with component 12, but it is not clear

how components 14 and 22 communicate directly with components 16, 18 and 20.

Component 16 of <u>Hanagan et al.</u> (as more clearly represented in Figure A) does not

even communicate directly with any of the other components. Component 12 comes as

close as any component to communicating with all others, although it still clearly fails to

have capabilities for direct communication with component 16. Component 12 of

<u>Hanagan et al.</u> is a Customer Care Manager. One of ordinary skill in the art would

expect a component with managerial functionality to have the most express capabilities.

<u>Such characteristic, however, merely makes the system disclosed in Hanagan et al.</u>

<u>closer to the architecture of **Prior Art** Fig. 1 of the subject application than it does the</u>

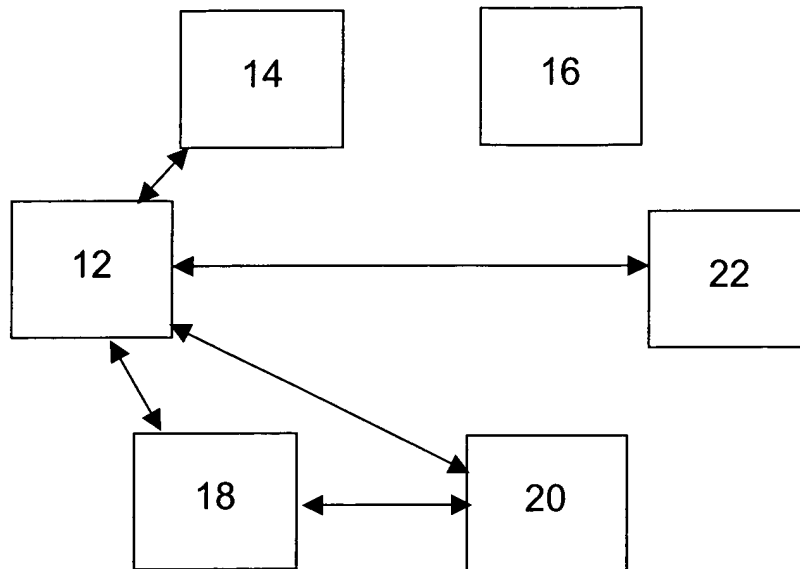<u>newly disclosed subject matter set forth in claim 1.</u>

Figure A: Communication Among Components in Hanagan et al.

The feature of having direct communication among components as set forth in claim 1 is quite significant, as the present application distinguishes such direct communication with known customer care and billing systems (e.g., the system of Prior Art Fig. 1). More particularly, with reference to Fig. 1 of the subject application, pg. 3 lines 6-14 of the present specification discuss aspects of known systems where at least some modules are directly connected to a central database and are not able to communicate with each other directly via interfaces. Instead, the central database serves implicitly as a significant interface between various modules causing a lot of unnecessary internal interdependencies.

The customer care and billing system set forth in present claim 1 is such that all components (5) are able to communicate with one another **directly** via interfaces. As described on page 4, lines 8-13 of the present application, when components are able

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to communicate with each directly via interfaces (as opposed to through a database server as disclosed in <u>Hanagan et al.</u> and other previous systems), a more flexible configuration of business logic is facilitated so that customer demands can be fulfilled with a minimum of implementation modifications. Furthermore, such a system can flexibly and easily be adapted to an increasing amount of processing data.

Based on the above distinctions, Applicants respectfully submit that <u>Hanagan et al.</u> fail to disclose every element set forth in original claim 1, specifically the <u>direct communication</u> among components via interfaces. As such, <u>Hanagan et al.</u> cannot by law serve to anticipate claim 1, and Applicants respectfully request reversal of the rejection of such claim under 35 U.S.C. §102(e).

Before setting forth the remaining arguments in this Appeal Brief, Applicants note that each of the remaining claims for which arguments are presented are dependent from sole independent claim 1 of the subject application. Based on the above arguments presented with respect to claim 1, Applicants submit that such claim is in condition for allowance. Since each of claims 2-20 depends from otherwise allowable claim 1 and further limits same, Applicants respectfully submit that all such claims should also be allowed. Acknowledgement of the same and reversal of the rejection of such claims are earnestly solicited.

<u>In the alternative</u>, Applicants hereafter argue respective patentability of claims 2, 7, 9-13, 14, 15, 18 and 19.

II.   <u>Claim 2 is patentable under 35 U.S.C. §102(e) over Hanagan et al. (U.S.</u>

<u>Patent Application No. US 2001/0056362 A1).</u>

As previously set forth in section (v) Summary of Claimed Subject Matter, supra, claim 2 is directed to a customer care and billing system that is divided into at least two hierarchically arranged layers having an increasing degree of abstraction. Claim 2 also sets forth that any lower layer isolates the above layer from the lower layers so that details of implementations of the lower layers are hidden from the layers above.

Numbered page 3 of the October 5, 2004 Office Action sets forth that <u>Hanagan et al.</u> disclose that the system is divided into at least two layers (as illustrated in figure 23) of such reference. Referring to page 20, paragraph [0316] of <u>Hanagan et al.</u>, the classes depicted in Fig. 23 going from the bottom to the top of the diagram progress from generality to specificity, and that at each level, the functions are used to support processing that is resident in higher layers. Such description corresponds to inherent features of a layered hierarchy. This description, however, does not describe the specific limitation of claim 2 that the layers in such a customer care and billing system are arranged with an increasing degree of abstraction wherein any lower layer isolates the above layer from lower layers so that details of implementation of lower layers are hidden from the layers above. Such specific arrangement whereby each layer is isolated from the complicated matters of the underlying layers offers a high degree of flexibility and independence in accordance with the customer care and billing system of claim 2, especially since the communication between layers can be implemented only via the use of standard interfaces. (See page 12, lines 23-25 of the original specification.)

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Since <u>Hanagan et al.</u> fail to disclose all elements of claim 2, such reference cannot by law serve to anticipate claim 2. As such, Applicants submit that claim 2 contains allowable subject matter, and reversal of the rejection of such claim under 35 U.S.C. §102(e) is respectfully requested.

III.   <u>Claim 7 is patentable under 35 U.S.C. §102(e) over Hanagan et al. (U.S. Patent Application No. US 2001/0056362 A1).</u>

As previously set forth in section (v) Summary of Claimed Subject Matter, supra, claim 7 is directed to a customer care and billing system that is characterized in that the system includes an application layer located above a technical services layer combing the services of the technical services layer in an abstract application and allowing mechanisms for description of the elements of a domain tier on a meta-level.

Numbered page 3 of the October 5, 2004 Office Action sets forth that <u>Hanagan et al.</u> disclose an application layer (via software layers 394). However, the October 5, 2004 Office Action fails to point out how <u>Hanagan et al.</u> disclose the provision of an application layer that allows mechanisms for description of the elements of a domain tier on a meta-level.

Applicants submit that the examination of claim 7 is inadequate in accordance with the requirements of the patent statute and rules regarding claim examination, especially 35 U.S.C. §132 and 37 C.F.R. §1.104. The burden of proof for the Examiner to show how aspects of claim 7 are disclosed in <u>Hanagan et al.</u>, especially given the relative complexity of such reference, has not been met.

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Applicants further submit that <u>Hanagan et al.</u> fail to disclose all elements of claim 7 and thus, such reference cannot by law serve to anticipate claim 7. Reversal of the rejection of claim 7 under 35 U.S.C. §102(e) is respectfully requested.

IV.   <u>Claims 9-13 are patentable under 35 U.S.C. §102(e) over Hanagan et al.</u>
        <u>(U.S. Patent Application No. US 2001/0056362 A1).</u>

As previously set forth in section (v) Summary of Claimed Subject Matter, supra, claims 9-13 are respectively directed to a customer care and billing system that are respectively characterized in that the systems include various specific tiers. The system of claim 9 includes a presentation tier implementing the presentation of data and the feasibilities of application for the user of the system. The system of claim 10 includes an application tier containing classes and interfaces that represent the application. The system of claim 11 includes a meta-application tier containing classes that provide facilities to an application to describe aspects of itself. The system of claim 12 includes a domain tier containing business object classes of a specific application domain. The system of claim 13 includes a persistence tier representing a reproduction of the class model of the domain tier into the data model of the at least one database and supporting mechanisms for transaction-protected manipulation of data in the at least one database.

The October 5, 2004 Office Action fails to point out how <u>Hanagan et al.</u> disclose the provision of the respective specific tiers set forth in claims 9-13 of the present application. As such, Applicants submit that the examination of claims 9-13 is inadequate in accordance with the requirements of the patent statute and rules regarding claim examination, especially 35 U.S.C. §132 and 37 C.F.R. §1.104. The

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burden of proof for the Examiner to show how every element of respective claims 9-13 is disclosed in <u>Hanagan et al.</u>, especially given the relative complexity of such reference, has not been met. There has been no disclosure in any issued Office Action for this case describing any particular part of such reference that is relied upon for a rejection of any one of claims 9-13.

Applicants further submit that <u>Hanagan et al.</u> fail to disclose all elements of claims 9-13, respectively. Therefore, such reference cannot by law serve to anticipate claim 7. Reversal of the rejection of claim 7 under 35 U.S.C. §102(e) is respectfully requested.

V.   <u>Claim 14 is patentable under 35 U.S.C. §102(e) over Hanagan et al. (U.S. Patent Application No. US 2001/0056362 A1).</u>

As previously set forth in section (v) Summary of Claimed Subject Matter, supra, claim 14 is directed to a customer care and billing system that is characterized in that the system includes a meta-application dictionary containing information about one component, its classes and the attributes of these classes, and allowing the dynamic configuration of application information and processing on a meta-level.

The October 5, 2004 Office Action fails to point out how <u>Hanagan et al.</u> disclose the provision of a meta-application dictionary such as set forth in claim 14. As such, Applicants submit that the examination of claim 14 is inadequate in accordance with the requirements of the patent statute and rules regarding claim examination, especially 35 U.S.C. §132 and 37 C.F.R. §1.104. The burden of proof for the Examiner to show how every element of claim 14 is disclosed in <u>Hanagan et al.</u>, especially given the relative

complexity of such reference, has not been met. There has been no disclosure in any issued Office Action for this case describing any particular part of such reference that is relied upon for a rejection of claim 14.

Applicants further submit that Hanagan et al. fail to disclose all elements of claim 14 and thus, such reference cannot by law serve to anticipate claim 14. Reversal of the rejection of claim 14 under 35 U.S.C. §102(e) is respectfully requested.

VI.   Claim 15 is patentable under 35 U.S.C. §102(e) over Hanagan et al. (U.S. Patent Application No. US 2001/0056362 A1).

As previously set forth in section (v) Summary of Claimed Subject Matter, supra, claim 15 is directed to a customer care and billing system that is characterized in that the system includes facilities to make the server's interface model available on a client side and thus to hide employed communication technology from a client developer.

The October 5, 2004 Office Action fails to point out how Hanagan et al. disclose the provision of each element set forth in claim 15. As such, Applicants submit that the examination of claim 15 is inadequate in accordance with the requirements of the patent statute and rules regarding claim examination, especially 35 U.S.C. §132 and 37 C.F.R. §1.104. The burden of proof for the Examiner to show how every element of claim 15 is disclosed in Hanagan et al., especially given the relative complexity of such reference, has not been met. There has been no disclosure in any issued Office Action for this case describing any particular part of such reference that is relied upon for a rejection of claim 15.

Applicants further submit that <u>Hanagan et al.</u> fail to disclose all elements of claim 15 and thus, such reference cannot by law serve to anticipate claim 15. Reversal of the rejection of claim 15 under 35 U.S.C. §102(e) is respectfully requested.

VII.   <u>Claim 18 is patentable under 35 U.S.C. §102(e) over Hanagan et al. (U.S. Patent Application No. US 2001/0056362 A1).</u>

As previously set forth in section (v) Summary of Claimed Subject Matter, supra, claim 18 is directed to a customer care and billing system that is characterized in that classes can be extended and/or new classes can be added to vary a component during processing by meta-application facilities.

The October 5, 2004 Office Action fails to point out how <u>Hanagan et al.</u> disclose the provision of each element set forth in claim 18. As such, Applicants submit that the examination of claim 18 is inadequate in accordance with the requirements of the patent statute and rules regarding claim examination, especially 35 U.S.C. §132 and 37 C.F.R. §1.104. The burden of proof for the Examiner to show how every element of claim 18 is disclosed in <u>Hanagan et al.</u>, especially given the relative complexity of such reference, has not been met. There has been no disclosure in any issued Office Action for this case describing any particular part of such reference that is relied upon for a rejection of claim 18.

Applicants further submit that <u>Hanagan et al.</u> fail to disclose all elements of claim 18 and thus, such reference cannot by law serve to anticipate claim 18. Reversal of the rejection of claim 18 under 35 U.S.C. §102(e) is respectfully requested.

VIII.   <u>Claim 19 is patentable under 35 U.S.C. §102(e) over Hanagan et al. (U.S.</u>
        <u>Patent Application No. US 2001/0056362 A1).</u>

As previously set forth in section (v) Summary of Claimed Subject Matter, supra,

claim 19 is directed to a customer care and billing system that is characterized in that

the system includes a plurality of independent database sections and/or multiple

independent databases exist, wherein each of the independent database sections

and/or the independent databases only communicate with one component.

The October 5, 2004 Office Action fails to point out how <u>Hanagan et al.</u> disclose

the provision of multiple databases or database sections each respectively

communicating with one component such as set forth in claim 19. As such, Applicants

submit that the examination of claim 19 is inadequate in accordance with the

requirements of the patent statute and rules regarding claim examination, especially 35

U.S.C. §132 and 37 C.F.R. §1.104. The burden of proof for the Examiner to show how

every element of claim 19 is disclosed in <u>Hanagan et al.</u>, especially given the relative

complexity of such reference, has not been met. There has been no disclosure in any

issued Office Action for this case describing any particular part of such reference that is

relied upon for a rejection of claim 19.

Applicants further submit that <u>Hanagan et al.</u> fail to disclose all elements of claim

19 and thus, such reference canot by law serve to anticipate claim 19. Reversal of the

rejection of claim 19 under 35 U.S.C. §102(e) is respectfully requested.

CONCLUSION :

In view of the foregoing, Applicants respectfully submit that all present claims 1-20, or alternatively, respectively, claims 2, 7, 9-15 and 18-19, patentably define over the applied <u>Hanagan et al.</u> reference, within the meaning of 35 U.S.C. Section 102, wherefore reversal of the grounds of rejection stated in the subject October 5, 2004 Final Rejection is requested.

Respectfully submitted,

DORITY & MANNING,
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_____March 7, 2005_____

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In accordance with 37 C.F.R. §1.121, the claim listing below includes the status and text of all claims.

1.   (Previously Presented) Customer care and billing system (1), especially for communication services, comprising:

At least one database (7) for storage and retrieval of data preferably formed as a server,

a plurality of clients communicating with the at least one database (7), or at least one application server with accompanying clients, the server communicating with the at least one database (7), and

an appropriate framework (10),

wherein relevant services corresponding to desired customer care or billing processes are offered to the system user, characterized in that

the system (1) comprises a distributed component architecture including components (5) attributed in correspondence to the relevant services offered, wherein the components (5) are able to communicate with each other directly via interfaces.

2.   (Original) Customer care and billing system (1) according to claim 1, characterized in that the system (1) is divided into at least two hierarchically arranged layers with increasing degree of abstraction wherein any lower layer isolates the above layer from the lower layers so that details of implementations of the lower layers are hidden from the layers above.

3.   (Original) Customer care and billing system (1) according to claim 1 or 2, characterized in that the system (1) is divided into at least two hierarchically arranged tiers corresponding to technical tasks wherein the combined elements of all tiers together completely fulfill the tasks from the storage to the presentation of data.

4.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a lowest base layer (40)

containing fundamental system behavior.

5.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a common layer (42) located above the base layer (40) containing abstractions of classes of the base layer (40) and classes that provide common facilities for all layers and tiers.

6.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a technical services layer (44) located above the common layer (42) providing software-related technical services.

7.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises an application layer (46) located above the technical services layer (44) combining the services of the technical services layer (44) in an abstract application and allowing mechanisms for description of the elements of the domain tier (58) on a meta-level.

8.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a business layer (50) located above the application layer (46) containing the domain-specific classes for each component (5).

9.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a presentation tier (52) implementing the presentation of data and the feasibilities of application for the user of the system (1).

10.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises an application tier (54) containing classes and interfaces that represent the application.

11.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a meta-application tier (56) · containing classes that provide facilities to an application to describe aspects of itself.

12.   (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a domain tier (58) containing business object classes of a specific application domain.

13. (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a persistence tier (60) representing a reproduction of the class model of the domain tier (58) into the data model of the at least one database (7) and supporting mechanisms for transaction-protected manipulation of data in the at least one database (7).

14. (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises a meta-application dictionary containing information about one component (5), its classes and the attributes of these classes, and allowing the dynamic configuration of application information and processing on a meta-level.

15. (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) comprises facilities (68) to make the server's interface model available on client side (70) and thus to hide the employed 20 communication technology from a client developer.

16. (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) provides defined interfaces and mechanisms for inquiry distribution, so that multiple application server of the same kind can be added to the system (1).

17. (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the system (1) provides the possibility of replacing or adding components (5).

18. (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that classes can be extended and/or new classes can be added to vary a component during processing by using meta-application facilities.

19. (Previously Presented) Customer care and billing system (1) according to claim 1, characterized in that the database (7) comprises a plurality of independent database sections (12) and/or multiple independent databases (12) exist, wherein each of the independent database sections and/or the independent databases (12) only communicate with one component (5).

20. (Previously Presented) Customer care and billing system (1) according to

claim 1, characterized in that the system (1) provides mechanisms to allow transaction and memory management distributed over components (5).

ix.   EVIDENCE APPENDIX

Not Applicable

x.   RELATED PROCEEDINGS APPENDIX

Not Applicable